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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,012	01/18/2002	Douglas Morgan Freimuth	YOR920010561US2	2130

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IBM CORPORATION  
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EXAMINER

AVELLINO, JOSEPH E

ART UNIT PAPER NUMBER

2143

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/053,012	Applicant(s) FREIMUTH ET AL.	
	Examiner Joseph E. Avellino	Art Unit 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 15-17 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 18-20, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-23 are pending in this examination. The Office acknowledges the Election made without traverse to prosecute Group I, claims 1-14, and 18-20. The Office further acknowledges the addition of claims 22 and 23 which recite subject matter commensurate with Group I claims.

#### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 22 is not limited to tangible embodiments. In view of Applicant's disclosure, specification page 13 lines 24 and 25, the means is not limited to tangible embodiments, instead being defined as including both tangible embodiments (i.e. hardware or a combination of hardware and software) and intangible embodiments (i.e. software only). As such, the claim is not limited to statutory subject matter and is therefore non-statutory.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 3 recites a specific limitation to an entity of a Markush listing. This claim does not further limit the claim since the URI in claim 2 is not required, thereby not requiring the limitations of claim 3. Correction is required.

7. Claim 7 recites a specific limitation to an entity of a Markush listing. This claim does not further limit the claim since the action of dropping of claim 6 is not required, thereby not requiring the limitations of claim 7. Correction is required.

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-14, and 18-20, 22, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Taylor et al. (USPN 6,728,885).

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9. Referring to claim 1, Taylor discloses a method comprising differentiating at least one service class in a kernel to perform service differentiation based on content in at least one data packet, including the steps of:

capturing at least one data packet until a complete application header is detected (an inherent feature of capturing a packet at a NIC as disclosed in Taylor is that an application header is also captured) (col. 5, lines 30-32);

parsing said complete application header to determine at least one application tag (i.e. attribute information such as source and destination address which are contained in the application header) (col. 6, line 15-17);

matching said at least one application tag to at least one matching rule (col. 6, lines 32-37);

determining a presence of at least one match with said at least one matching rule (i.e. checking the relevant information on the SYN packet sent by DPF 207) (col. 6, lines 32-37; col. 10, line 57 to col. 11, line 10); and

performing service differentiation (i.e. discarding packet if determined not to allow connection or creating a new connection and applying the corresponding rule to any subsequent packets from that connection until the connection s disconnected) (col. 6, lines 61-65).

10. Referring to claim 2, Taylor discloses the application tag includes a request method (i.e. filter to all "telnet" packets) (col. 6, lines 28-30).

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11. Referring to claim 3, it is an inherent feature in HTTP that the URI is the second string in the HTTP header, (the first string is the action word, such as GET POST HEAD SYN, etc.).

12. Referring to claim 4, Taylor discloses employing a table having at least one matching rule (col. 6, lines 53-57).

13. Referring to claim 5, Taylor discloses finding a best match (i.e. a rule which best fits the packet, such as the type of protocol used) (col. 6, lines 25-43).

14. Referring to claim 6, Taylor discloses service differentiation includes dropping (i.e. discarding a packet) (col. 6, lines 61-65).

15. Referring to claim 7, Taylor discloses dropping includes discarding a connection (i.e. do not allow a connection) (col. 6, lines 61-65).

16. Referring to claim 8, Taylor discloses said action includes protocol control (i.e. setting up a new connection (col. 6, lines 61-65).

17. Referring to claim 9, Taylor discloses installing at least one matching rule (col. 6, lines 44-57).

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18. Referring to claims 10 and 11, Taylor discloses detecting establishment of a new TCP connection (col. 6, line 60 to col. 7, line 10).

19. Referring to claim 12, Taylor discloses the step of establishing a new TCP connection includes receiving a SYN packet, sending a SYN-ACK packet, deferring accept, receiving ACK for SYN-ACK and deferring notification of data packet (this is an inherent feature of the HTTP basic 3-way handshake for Connection synchronization which can be found in the Transmission Control Protocol DARPA Internet program Protocol Specification September 1981 prepared by Information Sciences Institute, USC, page. 31 Figure 7) (col. 5, lines 55-60).

20. Referring to claim 13, detecting application header delimiters for said data packet is an inherent feature of Taylor since without this detection step, the system would not know where the header starts and ends.

21. Claims 14, and 18-20, 22, and 23 are rejected for similar reasons as stated above.

### ***Conclusion***

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

23. RFC 793: Transmission Control Protocol DARPA Internet program Protocol Specification (September 1981 prepared by Information Sciences Institute) discloses basic semantics of the TCP protocol.
24. Nessel et al. (USPN 5,968,176) discloses a multiplayer firewall system.
25. Chen et al. (US 2002/0116527) discloses a lookup engine for network devices.
26. Wesinger, Jr. et al. (USPN 5,898,830) discloses a firewall providing enhances network security and user transparency.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.




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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JEA  
April 5, 2005



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